

Global Challenge

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2020 - 2021	Anver Emon Faculty of Law	Haytham Nahoora – Comparative Literature, Near and Middle Eastern Studies	Reading Muslims: The Politics of Texts in Islamic Studies	The Reading Muslims Project seeks the theoretical enrichment of our textual approaches by engaging with the field's history and the novel insights of postcolonial studies, critical race studies, gender studies, and queer studies, among other disciplines that focus upon histories of power and marginalization.
		Mohammad Fadel – Faculty of Law		
		Alexandra Gillespie – English and Drama, UTM		
		Ruba Kana'an – Visual Studies, UTM		
		Jeannie Miller – Near and Middle Eastern Civilizations		
		Amira Mittermaier – Religion, Anthropology		
		Nada Moumtaz – Study of Religion		
	Youcef Soufi – Institute of Islamic Studies			
	Award: \$213,975			
	Timothy Chan Mechanical and Industrial Engineering	Beth Ali – Faculty of Kinesiology and Physical Education	High-Performance Analytics for High-Performance Sports	Our long-term goal is to turn the University of Toronto (UofT) into a global centre of excellence in sports analytics. Our specific objectives are to accelerate sports analytics research, develop novel student training opportunities, facilitate industry engagement, and improve EDI. We will achieve these objectives through: 1) “Pathfinder” research projects to catalyze faculty-student-industry interactions; 2) an international symposium and summer school; 3) the first EDI study in the sports analytics sector.
		Paul Dorian – Faculty of Medicine		
		Michael Hutchison – Faculty of Kinesiology and Physical Education		
		Matthew Mitchell – Rotman School of Management		
		Doug Richards – Faculty of Kinesiology and Physical Education		
		Nathan Taback – Statistical Sciences		
		Scott Thomas – Faculty of Kinesiology and Physical Education		
		Richard Zemel – Computer Science		
	Award: \$250,000			

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2020 - 2021	Shana Kelley Leslie Dan Faculty of Pharmacy	Robert Batey – Chemistry	Global Perspectives to Advanced Precision Medicine	The Global Challenge funding will allow PRiME to establish: 1) - The PRiME Frontiers of Precision Medicine Speaker Series . 2) - The PRiME Ph.D. and PDF Exchange Program that will provide trainee exchange opportunities with partner institutions to allow hands-on training in advanced technologies. 3) - The PRiME Scholars Program for local and international undergraduate students to gain hands-on experience in the labs of PRiME members and benefit from programming around entrepreneurship and drug discovery.
		Jason Moffat – Faculty of Medicine, Donnelly Centre for Cellular and Biomolecular Research		
		Milica Radisic – Institute of Biomaterials and Biomedical Engineering		
		Molly Shoichet – Chemical Engineering and Applied Chemistry		
		Keith Paradee – Leslie Dan Faculty of Pharmacy		
		Alán Aspuru-Guzik – Chemistry, Computer Science		
		Stéphane Angers - Leslie Dan Faculty of Pharmacy		
Award: \$250,000				
Jillian Kohler Leslie Dan Faculty of Pharmacy	Suzanne M. Cadarette – Leslie Dan Faculty of Pharmacy	Avram Denburg – Paediatrics, Faculty of Medicine	Advancing Anti- Corruption, Transparency and Accountability Mechanisms to Tackle Corruption in the Pharmaceutical System	This initiative will create a vibrant and multidisciplinary global network of experts who will harness their knowledge to focus on what anti-corruption, transparency and accountability (ACTA) mechanisms can reduce corruption in the pharmaceutical sector globally. Three priority areas of focus: 1) Optimal Anti-Corruption, Transparency and Accountability (ACTA) Mechanisms for the Pharmaceutical System; 2) Examination of the Regulation of the Global Pharmaceutical Industry; and, 3) Harnessing of Technology to Curb Corruption in the Pharmaceutical Procurement.
		Erica Di Ruggiero – Dalla Lana School of Public Health		
		Lisa Forman – Dalla Lana School of Public Health		
		Paul Grootendorst – Leslie Dan Faculty of Pharmacy		
		Quinn Grundy – Lawrence S. Bloomberg Faculty of Nursing		
		Trudo Lemmens – Faculty of Law		
		Joel Lexchin – Faculty of Medicine		
		Anita McGahan – Rotman School of Management, Munk School of Global Affairs		
		Kathy Moscou – Leslie Dan Faculty of Pharmacy		
		Alison Thompson – Leslie Dan Faculty of Pharmacy		
Award: \$249,400				

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2020 - 2021	James Slotta Curriculum, Teaching and Learning, Ontario Institute for Studies in Education Award: \$248,852	Kathy Bickmore – Curriculum, Teaching and Learning	International Partnerships in Education: Supporting 21 st Century Competencies and Student Empowerment	This project would establish local teacher communities in China, India, Brazil and Tanzania, (1) working with a local coordinator to set up a cohort of teachers that meets face-to face and online, (2) introducing customized online supports within a web-based environment, and (3) connecting teachers with peers in the international community. This approach will offer a source of contextually relevant support, closely coordinated with local partners in those settings. All teachers will be supported to design, enact, and reflect on the success of a competency-centred lesson in topics of climate change education.
		Steve Easterbrook – Computer Science		
		Greg Evans – Chemical Engineering		
		Daniel Harvey – Geography		
		Hilary Inwood – Curriculum, Teaching and Learning		
2019 - 2020	Ana Cristina Andrezza Pharmacology and Toxicology Award: \$244,100	Trudo Lemmens – Faculty of Law	mitoNet: The Power of Mitochondrial to Transform Human Health	In collaboration with mitoNET, this proposal will deliver supporting technologies, integrative platform and interdisciplinary knowledge that will lead a paradigm-shift in the way clinicians will approach the possibility of mitochondrial dysfunction in common, yet significant, medical conditions and has the potential to transform medical practice and drug development.
		Rebecca Laposa – Pharmacology & Toxicology		
		Kenneth R. Evans – Pathology & Laboratory Medicine		
		Marc Fiume – Molecular Genetics		
		Ingrid Tein - SickKids Hospital		
		Tania Bubela – Simon Fraser University		
		Blaine Penney - MitoCanada Foundation		

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2019 – 2020	Adalsteinn Brown Dalla Lana School of Public Health	Sara Allin - Institute of Health Policy, Management and Evaluation	The Benefits of Pneumococcal Vaccination for Seniors: A Centre for Vaccine Preventable Diseases Interdisciplinary Project on Healthy Aging and Immunization Science	This project proposes to build a new interdisciplinary collaboration at the University of Toronto on immunization of seniors by focusing on pneumococcal vaccination, approaching the issue from diverse perspectives. In establishing aging as a focus, the project will take a life course lens to vaccination and build the groundwork for synergistic initiatives in the science of immunization and aging.
		Frank Rudzicz – International Centre for Surgical Safety		
		Natasha Crowcroft – Laboratory Medicine & Pathobiology, Dalla Lana School of Public Health		
		Beate Sander – Institute of Health Policy, Management and Evaluation		
		Sarah Wilson – Dalla Lana School of Public Health		
		Jeff Kwong – ICES		
		Jonathan Gubby – Laboratory Medicine & Pathobiology		
		Shelley Deeks – Dalla Lana School of Public Health		
		Dana Philpott - Immunology		
		Tania Watts – Immunology		
		Scott Gray-Owen – Molecular Genetics		
		Esme Fuller-Thomson – Factor-Inwentash Faculty of Social Work		
		Jennifer Gibson - Centre for Bioethics		
		Ross Upshut – Dalla Lana School of Public Health		
Award: \$248,789				
David McMillen UTM: Chemical and Physical Sciences	Cynthia Goh - Chemistry, Institute of Medical Science, and Munk School of Global Affairs	Creso Sá – CIHE, OISE	Innovating for the Global South: Accelerating the Impact of Synthetic Biology on Health	The proposed project will help define health needs and targets, encourage collective thinking around potential solutions, and advance models of how synthetic biology innovations can reach affected populations. The proposed initiative will allow stakeholders to move together from brainstorming urgent and realistic targets to identifying creative solutions.
		Keith Pardee – Pharmacy		
		Arun Chockalingam – Dalla Lana School of Public Health, and Faculty of Medicine		
		Award: \$245,400		

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2019 - 2020	Avrum Gotlieb Laboratory Medicine and Pathobiology Award: \$247,000	Uri Tabori – Pediatrics	Catalyzing the University of Toronto as a Global Epicenter for Translational Research and Training	This proposal aims to establish an effective centre in Toronto for translational activities, which will increase strategic coordination around awareness, education, research, and innovation opportunities that accelerate, impact and facilitate relationship-building with academic, industry and legislative stakeholders. The creation of a community to provide support and infrastructure at the U of T will expedite the growth and development of our local translational infrastructure and its global reach.
		Joseph Ferenbock - Psychiatry		
		Norman Rosenblum – Pediatrics, Physiology, and Laboratory Medicine & Pathobiology		
		Paul Santerre – Faculty of Dentistry		
		Ronald Cohn - Molecular Genetics		
		Benoit Mulsant – Psychiatry		
		James Rutka – Surgery		
		Alan Moody – Medical Imaging		
		Gillian Hawker – Rheumatology		
		Lucy Osborne – Medicine, Molecular Genetics		
Naomi Matsuura – Materials Science & Engineering, Institute of Biomaterials & Biomedical Engineering				
2018 - 2019	Laura Rosella Dalla Lana School of Public Health Award: \$250,000	Ajay Agrawal – Rotman School of Management	Beyond Prediction: Building a Global Network to Unlock the Potential of Advanced Analytics & Population Risk Tools to Address Complex Health System Challenges	The goal of this proposal is to form a team based out of the University of Toronto that will launch a global network to advance innovative research and training in predictive analytics. The team will address the most pressing health challenges, distinctly from a population health perspective.
		Timothy Chan – Mechanical and Industrial Engineering		
		Ayi Goldfarb – Rotman School of Management		
		Scott Sanner – Mechanical & Industrial Engineering		
Andreas Veneris Electrical and Computer Engineering Award: \$222,435	Katya Malinova – Economics	Andreas Park – UTM: Management, and Rotman School of Management	UTLedgerHub: University of Toronto's Global Knowledge Hub for Crypto-Economic Technology, Finance, Privacy, Governance, and Regulation in a Decentralized Future	This proposal will establish UTLedgerHub, a lab that amalgamates and bundles the University of Toronto's researchers' interests across the main related areas: technology, finance, and economics – so as to establish the U of T as an international leader in research and teaching of decentralized ledger technology and blockchain technology.

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2018 – 2019	Marc Cadotte UTSC: Biological Sciences Award: \$242,500	Marney Issac – UTSC: Physical & Environmental Sciences	Solving the Global Urban Biological Invasions Conundrum	This proposal argues for the creation of a Global Urban Biological Invasions Consortium (GUBIC) to oversee a network of projects and collaborations to determine the magnitude of invasion economic and ecosystem impacts in cities around the world.
		Daniel Silver - UTSC: Sociology		
		James Scott McIvor – UTSC: Biological Sciences		
		Nicholas Mandrak – UTSC: Biological Sciences		
		Sara Hughes – UTM: Political Science		
		Marc Johnson – UTM: Biology		
		Marie-Josée Fortin – Ecology & Evolutionary Biology		
		Sandy Smith – Forestry		
	Liat Margolis – Architecture, Landscape & Design			
	Valentina Napolitano Anthropology Award: \$250,000	Simon Coleman – Religion	Entangled Worlds: Sovereignities, Soils and Sanctities	This project examines contemporary forms of sovereignty by realizing the potential of the tri-campus University of Toronto as a leading hub of knowledge and expertise on relations between Theologies and both the Social and Natural Sciences.
2017 – 2018	Laura Derksen UTM: Management Award: \$247,860	Anita McGahan – Rotman School of Management	Big Data – Local Impact – Healthy Lives: Building a Canadian Indigenous and African Health Informatics Research and Innovation Platform	The Big Data revolution has the potential to transform healthcare delivery in low resource settings and radically improve health outcomes for those living in remote, rural, and Indigenous communities. This proposal will examine the potential for Big Data to unlock innovation in healthcare delivery, leading to locally relevant breakthroughs. The overarching goal is to study the use of local data where health improvements must happen.
		Joseph Cafazzo – Healthy Policy, Management & Evaluation		
		James Orbinski – Dalla Lana School of Public Health		
		Adrienne Chan – Medicine		
		Sumeet Sodhi-Helou – Family & Community Medicine		
	Benjamin Chan – Health Policy, Management & Evaluation			
	Vijayakumar Murty Mathematics Award: \$250,000	Joseph Wong – Political Science Mariana Prado – Faculty of Law	Scalable Architecture for Smart Villages	The project aims to develop expertise and leadership in the development of Smart Villages, resulting in more emphasis on human resource development and empowerment.

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2017 - 2018	Prabhat Jha Dalla Lana School of Public Health Award: \$250,000	Graeme Hirst – UTSC: Computer and Math Science	Innovations to Close the Global Mortality Data Divide	The proposal aims to expand U of T's global leadership with additional innovations that carefully frames the global mortality data divide as a solvable challenge.
		Marie-Josée Fortin – Ecology and Evolutionary Biology		
		Anita McGahan – Rotman School of Management		
		John Ross McLaughlin – Dalla Lana School of Public Health		
		Erica Di Ruggiero – Dalla Lana School of Public Health		
	Michelle Murphy History Award: \$234,800	Alessandro Delfanti – UTM: Communication, Culture, Innovation & Technology	Technoscience Research Unit Lab for Environmental Data Justice	This project will establish a Technoscience Research Unit Lab, situated to become a leader in the emergent field of Environmental Data Justice (EDJ). The research goes beyond Open Access approaches to environmental data by critically examining and proposing alternatives to the infrastructures that create, care for, and share environmental data towards the goals of environmental justice.
Patrick Keilty – Faculty of Information				
Shiho Satsuka – Anthropology				
	Craig Simmons Mechanical and Industrial Engineering Award: \$250,000	Christopher McCulloch – Faculty of Dentistry	The Global Fibrosis Network	The central objective of this proposal is to establish the Global Fibrosis Network (GFN) that through its cumulative interdisciplinary and multi-sectoral expertise, will initiate and lead a coordinated effort to catalyze the advancement of fibrosis research.
Richard Gilbert – Laboratory Medicine & Pathobiology				
Beate Sander – Health Policy, Management and Evaluation				
2016 – 2017	Mark Fox Mechanical and Industrial Engineering Award: \$250,000	Richard Florida – Rotman School of Management	Urban Genome Project	The Urban Genome Project (UGP) is a multi-disciplinary effort, with the ultimate goal of creating a Science of Cities. UGP is a broad-based effort to uncover the microcosmic building blocks of cities and urban life that can be put together, recomposed and scaled in various ways.
		Shauna Brail – Urban Studies Program		
		Matthew Siemiatycki – Geography		
		Daniel Silver – UTSC: Sociology		
		Robert Wright – Architecture, Landscape & Design		

Year	Principle Investigator Department	Co-PI's Department	Project	Executive Summary
2016 – 2017	David Lie Electrical and Computer Engineering Award: \$250,000	Lisa Austin – Law	The Information Technology, Transparency, and Transformation (IT3) Lab	This proposal is to create the Information Technology, Transparency, and Transformation (IT3) Lab. The objectives of IT3 will be to make the implications and effects of information collection, warehousing and analysis transparent to individuals, companies, and governments.
		Avi Goldfarb – Rotman School of Management		
	Brent Sleep Civil Engineering Award: \$248,000	Clare Brett – OISE	Network for Engineering Education for Sustainable African Cities (NEESAC)	This project will create a new partnership called the <i>Network for Engineering Education for Sustainable African Cities (NEESAC)</i> . The project plan is to pursue a set of 10 initiatives to build out a network, to create customized online content around the topic of sustainable cities, and to generate a rich dialog with African educators.
		Patricia McCarney – Political Science		
		Greg Evans – Chemical Engineering		
		Jennifer Drake – Civil Engineering		

Recipients Under the Former Global Challenge Program

Year	Awardee	Department	Project
2014 – 2015	Geoffrey Ozin	Chemistry	The New CO2 Economy – Solar Energy Enabled Closed Carbon Cycle
2013 – 2014	Brenda Andrews	Centre for Cellular & Biochemistry Research	Network for Modeling and Mapping Complex Disease: Addressing the Global Challenge to Understand Our Personal Genomes
2013 – 2014	Jennifer Gommerman	Immunology	Global Migration and Chronic Inflammatory Disease
2012 – 2013	Edward Sargent	Electrical and Computer Engineering	Bio-inspired Energy-conversion Technologies
2010 -2011	Stephen Lye	Obstetrics and Gynaecology	Developmental Trajectories: A University of Toronto System-wide Initiation to Improve Health